Notice of Allowability	Application No.	Applicant(s)	
	10/602,148	RACHLIN, ELLIOTT H.	
	Examiner	Art Unit	
	John H Le	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Applicant's amendment filed 10/27/2004*.

2. ☒ The allowed claim(s) is/are *1-53*.

3. ☒ The drawings filed on *23 June 2003* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

Response to Amendment

1. Applicant's amendment filed 10/27/2004 has been entered and carefully considered.

Claims 1-2, 14-15, 20, 26-27, and 43 have been amended.

Claims 51-53 have been added.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Paul D. Amrozowicz on 11/18/2004.

The applicant has been amended as follows:

Claim 13, line 1, "claim 2" has been changed to –claim 3--.

Reasons for Allowance

3. Claims 1-53 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

In combination with other limitations of the claims, the cited prior arts fails to teach a processor coupled to receive the pressure signals and the temperature signals, the processor configured, in response thereto, to: determine a first derivative of

pressure with respect to time and a feeding volume; and to determine a size of the aperture based at least in part on the first derivative of pressure with respect to time, the determined feeding volume, the predetermined volume, the sensed compartment pressure, and the sensed compartment temperature, as recited in amended claim(s) 1.

In combination with other limitations of the claims, the cited prior arts fails to teach a processor adapted to receive one or more pressure signals representative of sensed compartment pressure and one or more temperature signals representative of sensed compartment temperature, and configured, in response thereto, to: determine a first derivative of pressure with respect to time and a feeding volume based at least in part on the sensed compartment pressure; and estimate a size of a depressurization aperture based at least in part on the first derivative of pressure with respect to time, the determined feeding volume, the predetermined volume, the sensed compartment pressure, and the sensed compartment temperature, as recited in amended claim(s) 14.

In combination with other limitations of the claims, the cited prior arts fails to teach the steps of: determining pressure, feeding volume, and temperature within the compartment; determining a first derivative of the pressure with respect to time; determining whether the compartment is depressurizing based at least in part on the determined first derivative of the pressure with respect to time; and if it is determined that the compartment is depressurizing, determining a size of the aperture based at least in part on the determined first derivative of the pressure with respect to time, the determined feeding volume, the determined compartment pressure, the determined

compartment temperature, and predetermined volume, as recited in amended claim(s) 26.

In combination with other limitations of the claims, the cited prior arts fails to teach a depressurization analyzer executable on a computer, the analyzer including: a depressurization detector executable on the computer to detect depressurization and to determine a size of a gas depressurization aperture in a gas-pressurized compartment given temperature, pressure, and volume information relating to gas within the compartment; a depressurization predictor executable on the computer to determine a rate of growth of the aperture and to determine one or more critical times during the depressurization; a depressurization reporter executable on the computer to present information regarding the depressurization, including the one or more critical times; and signal bearing media bearing the depressurization analyzer, as recited in amended claim(s) 43.

In combination with other limitations of the claims, the cited prior arts fails to teach a processor coupled to receive the pressure signals and the temperature signals, the processor configured, in response thereto, to: determine a first and a second derivative of pressure with respect to time; determine a size of the aperture based at least in part on the first derivative of pressure with respect to time, the predetermined volume, the sensed compartment pressure, and the sensed compartment temperature; and determine a rate of growth of the determined aperture size based at least in part on the second derivative of pressure, as recited claim(s) 51.

In combination with other limitations of the claims, the cited prior arts fails to teach a processor adapted to receive one or more pressure signals representative of sensed compartment pressure and one or more temperature signals representative of sensed compartment temperature, and configured, in response thereto, to: determine a first and a second derivative of pressure with respect to time based at least in part on the sensed compartment pressure; estimate a size of a depressurization aperture based at least in part on the first derivative of pressure with respect to time, the predetermined volume, the sensed compartment pressure and the sensed compartment temperature; and determine a rate of growth of the estimated depressurization aperture size based at least in part on the second derivative of pressure, as recited in claim(s) 52.

In combination with other limitations of the claims, the cited prior arts fails to teach the steps of: determining pressure and temperature within the compartment; determining a first derivative of the pressure with respect to time; determining a second derivative of the pressure with respect to time; determining whether the compartment is depressurizing based at least in part on the determined first derivative of the pressure with respect to time; if it is determined that the compartment is depressurizing, determining a size of the aperture based at least in part on the determined first derivative of the pressure with respect to time, the determined compartment pressure, the determined compartment temperature, and the predetermined volume; and determining a rate of change of the determined aperture size based at least in part on the second derivative of the pressure with respect to time, as recited in claim(s) 53.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John H Le whose telephone number is 571-272-2275. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John H. Le

Patent Examiner-Group 2863

November 18, 2004

John Barlow
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